

The first and only product of its kind

the ATLANTIC professional photo-electric DENSITOMETER

only

\$69.50

completely portable . . .
factory-calibrated
for extreme accuracy

ATLANTIC Model R DENSITOMETER
shown actual size



- a truly professional instrument
- reads transmission densities between 0.60 and 1.40
- also reads base densities below 0.60
- meter scale divided into 0.05 increments
- factory-calibrated to accuracy of ± 0.02

Specifications:

Dimensions: 3" w x 4" h x 2" d
Weight: 10 oz.
Power: 2 AA Mercury batteries
(good for a full year
at normal usage)

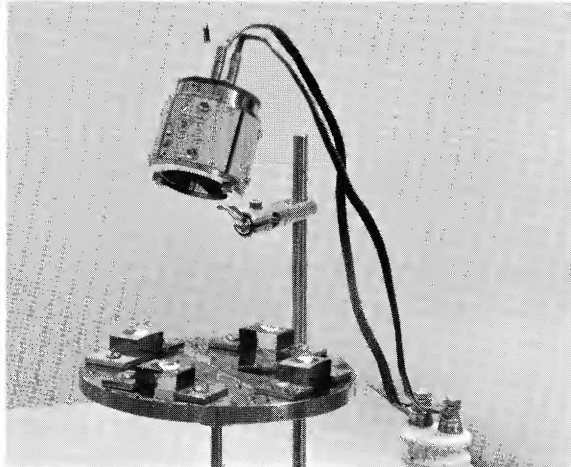
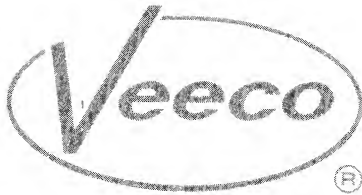
EASY-TO-USE . . . a 'must' working tool for the project supervisor, inspector, department head . . . anyone involved in quality control!
Full guarantee against defective materials and workmanship

ATLANTIC Model R DENSITOMETER

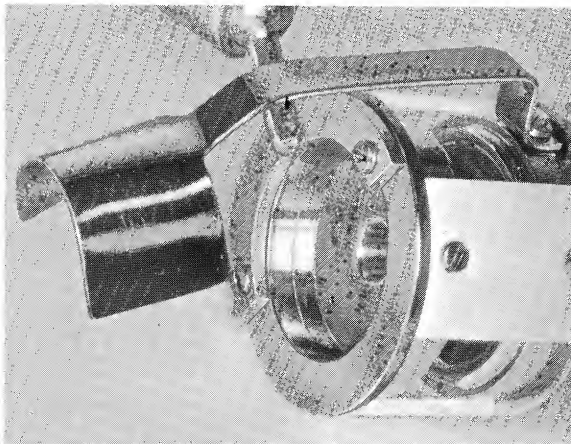


atlantic microfilm corp.

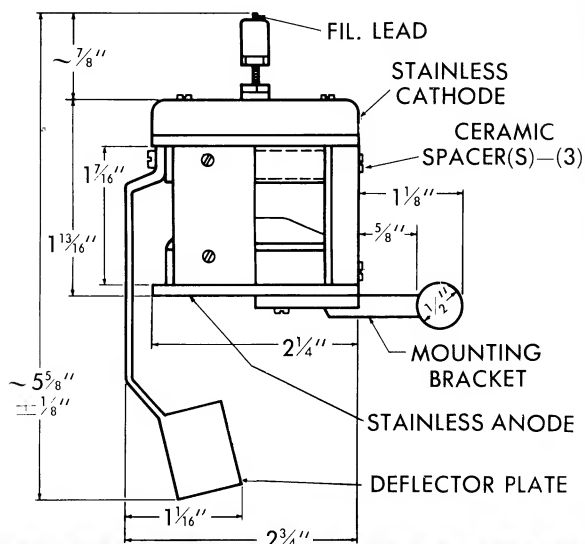
Spring Valley, New York



Electron Gun VeB-6G



VeB-6G with Deflection Plate



Ve-BEAM ELECTRON GUN

Model VeB-6

The Veeco VeB-6 Electron Beam Gun easily and rapidly evaporates refractory metals, high latent heat metals, and refractory dielectrics. Several materials can be deposited at rates up to 3000 angstroms/sec at 10 inches. Iron can be deposited at 3000 angstroms/sec at 4 inches (substrate to source distance).

The self-accelerated, Pierce-type gun concentrates a maximum of 6 KW on a $1/8''$ diameter spot. The electron beam is sharply defined and the $1/8''$ spot diameter is held over a 2" beam length. Focusing is insensitive to accelerating voltage, so that a highly regulated supply voltage is not required.

The Ve-Beam gun is compact and light and is easily mounted inside the bell-jar by means of a support-rod integral with the unit. Three-dimensional adjustment is attained through a ball-and-socket joint on the adjustable support-rod. The gun is supplied with a dual-electrode ceramic power feedthrough which installs in a 1" diameter hole. No bell-jar mountings are necessary.

The electron beam can be simply deflected by an electrostatic deflection plate attached to the cathode. Thus, the evaporation source and substrate can be placed so as not to see the gun filament.

All materials used in the Ve-Beam gun are suitable for ultra-high vacuum use; the structure is bakeable at 400°C.

The filament is held by a pin vise so that it can be removed, replaced, and aligned in under a minute. The Ve-Beam gun is of precise but simple construction. Disassembly for cleaning, and reassembly, requires only a screw driver.

The Veeco Ve-Beam gun has been designed to produce thin films from any material, rapidly, reliably, and with minimum time for maintenance.

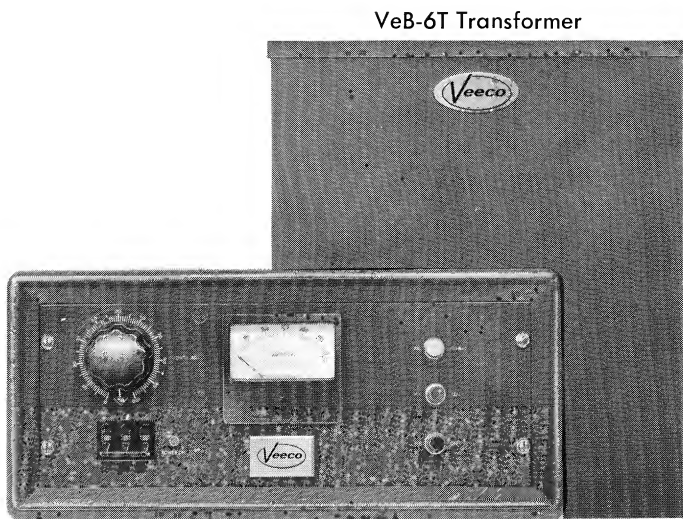
SPECIFICATIONS

Beam Power and Operating Voltage	6 KW 3 KW 2 KW 20 KV 15 KV 11 KV
Beam Current	300 ma. max.
Size of Gun	2 1/4" D x 3" high
Spot Size	1/8" D
Efficiency	99.5%



FEATURES

- 99.5% efficiency (eff = actual beam current/emission current)
- Self-accelerated
- High deposition rate (3000 A/sec for iron @ 4" from source)
- Electrostatically focused... magnet not required
- Bakeable at 400°C
- Constant depth of focus... 1/8" dia. spot anywhere in 2" range
- Focusing insensitive to accelerating voltage and beam current
- Non-regulated power supply thereby suitable for pulsing
- Beam power varied with only one control
- Constant spot while beam power varied
- Electrostatic deflection available
- Gun power output read directly on wattmeter (reads actual beam power)
- Safety interlocks
- Bifilar tungsten filament
- 500 hour filament life (minimum)
- Filament is self-aligning and may be easily changed in few seconds
- No water cooling required
- Small size (2 1/4" dia. x 3" L and 1/2 Lb.)
- Only one power feed-thru required
- Power supply control may be rack mounted
- Gun position variable within vacuum chamber
- Most economical system on a dollars per kilowatt basis
- Uniform beam density



Power Supply and Control VeB-6C

Ve-BEAM ELECTRON GUN POWER SUPPLY

Models VeB-6C and VeB-6T

To provide the power required for the high evaporation rates attained with the Model VeB-6 Electron Beam Gun, Veeco has engineered the PVeB-6 Power Supply with these features:

- 6 KW output
- 11, 15 or 20 KV at taps
- 0-300 ma. output max., continuously variable
- Beam Power read *directly* from watt meter
- Automatic *preheat* of filament
- Interlocks to prevent accidental application of high voltage
- Provision for process interlock or control